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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/535,422

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EXAMINER

ZHU, WEIPING

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

09/15/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/535,422	Applicant(s) KURODA ET AL.	
	Examiner WEIPING ZHU	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Claims 1-19 are currently under examination, wherein claim 1 has been amended and claims 18 and 19 have been newly added in applicant's amendment filed on May 30, 2008.

Status of Previous Rejections

2. The previous rejections of claims 1-17 under 35 U.S.C. 103(a) as stated in the Office action dated March 7, 2008 have been withdrawn in light of the applicant's amendment filed on May 30, 2008.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berns (US 5,503,687) in view of Wikipedia (http://en.wikipedia.org/wiki/Ferritic_stainless_steel) and further in view of Speidel et al. (US 5,714,115).

With respect to claim 1, Berns ('687) discloses a method for producing a component comprising bringing a ferritic stainless steel component in contact with a gas containing nitrogen at a predetermined temperature to make the component absorb nitrogen to transform at least part of the ferritic stainless steel to austenite (claim 4 and abstract).

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Berns ('687) does not specify the ferritic stainless steel is substantially free of nickel as claimed. However, it would have been obvious to one of ordinary skill in the art that the ferritic stainless steel of Berns ('687) would obviously meet the claim limitation of the content of nickel because the ferritic stainless steel is well known to have very little nickel, which reads on the claim limitation of substantially free of Ni, as disclosed by Wikipedia.

Berns ('687) in view of Wikipedia does not specify the melting step of producing the ferritic stainless steel and the working step of working the ferritic steel to the component as claimed. However, it would have been obvious to one of ordinary skill in the art that the method of Berns ('687) in view of Wikipedia would inherently comprise both steps, because Berns ('687) in view of Wikipedia teaches enriching the surface of the low-nitrogen-content stainless steel produced by an open steel smelting process with nitrogen to increase the wear resistance of the steel (col. 1, lines 5-48) and a working step will inherently be involved in shaping the stainless steel of Berns ('687) in view of Wikipedia into the component of a desired shape.

Berns ('687) in view of Wikipedia does not specify the medical device for living soft tissue as claimed. Speidel et al. ('115) discloses a stainless steel medical device for living soft tissue (claim 9). It would have been obvious to one of ordinary skill in the art to use the nitrogen treated stainless steel of Berns ('687) in view of Wikipedia for a medical device for living soft tissue as disclosed by Speidel et al. ('115) with expected success because the compositions and the structures of the nitrogen treated stainless steel of Berns ('687) in view of Wikipedia (e.g. nitrogen treated ferritic stainless steel

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18Cr-2Mo) and the stainless steel of Speidel et al. ('115) (Speidel et al. ('115), claim 9) are similar. See MPEP 2144.05 I.

With respect to claims 2 and 3, Berns ('687) in view of Wikipedia does not specify the composition of the ferritic stainless steel as claimed. However, It would have been obvious to one of ordinary skill in the art that the composition of the ferritic stainless steel of Berns ('687) in view of Wikipedia would meet the imitations of Fe, Cr and/or Mn and Mo and/or Ti contents as claimed, because common ferritic stainless steel grades include 18Cr-2Mo, 26Cr-1Mo and 29Cr-4Mo.

With respect to claims 4, 5, 11 and 12, Berns ('687) in view of Wikipedia discloses the treatment temperature is between 1000°C and 1200°C (abstract), which overlaps the claimed temperature ranges. A prima facie case of obviousness exists. See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the claimed temperature ranges within the disclosed temperature range of Berns ('687) in view of Wikipedia with expected success, because Berns ('687) in view of Wikipedia discloses the same utility over the entire disclosed range.

With respect to claims 6, 7, 13, and 14, Berns ('687) in view of Wikipedia discloses the nitrogen content of the nitrogen treated ferritic stainless steel is greater than or equal to 1.4% by weight (col. 2, lines 25-35 and Figure 2), which overlaps the claimed nitrogen contents. A prima facie case of obviousness exists. See MPEP 2144.05 I.

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With respect to claims 8, 9, 15 and 16, Berns ('687) in view of Wikipedia discloses that the nitrogen treated stainless steel has a two-phase structure of ferrite and austenite or a one phase austenitic structure (col. 1, lines 49-56).

With respect to claims 10 and 17, they are product-by-process claims. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. Berns ('687) in view of Speidel et al. ('115) discloses a medical device for living soft tissue, which reasonably appears to be only slightly different than the respective claimed products in the product-by-process claims. A rejection based on section 103 of the status is eminently fair and acceptable. See MPEP 2113.

With respect to the new claims 18 and 19, Speidel et al. ('115) discloses a stainless steel medical device for living soft tissue (claim 9) without specifying the types and the sizes of the medical device. It would have been obvious to one of ordinary skill in the art to use the method of Berns ('687) in view of Wikipedia and further in view of Speidel et al. ('115) to produce a metal tube of thickness 50-400 microns to be used for a stent as claimed with expected success, because Berns ('687) in view of Wikipedia and further in view of Speidel et al. ('115) discloses that their method can be used for any types of medical device for living soft tissue. See MPEP 2144.05 I. Furthermore, it is well settled that merely changing the size of an article is not a matter of invention. See MPEP 2144.04 IV.

Response to Arguments

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4. The applicant's arguments filed on May 30, 2008 have been fully considered but they are not persuasive.

First, the applicant argues that the stainless steels of Berns ('687) shown in Figs. 1 and 2 contain 12% and 5% of nickel respectively. In response, see the ground of rejection of the amended feature of claim 1 above. Furthermore, the examiner notes that the process of Berns ('687) is applied to a variety of stainless steels including austenitic, martensitic, ferritic, ferritic-austenitic and ferritic-martensitic stainless steels (claims 2-6). The ferritic stainless steel only has been relied upon to establish the grounds of rejection as stated above. The stainless steels in Fig. 1 and Fig. 2 of Berns ('687) having 12% and 5% of Ni respectively are not ferritic stainless steels, because the ferritic stainless steel by definition has very little Ni as stated above.

Second, the applicant argues that the instant invention and Berns ('687) differ in their compositions and the effect of the instant invention is unexpected over the cited prior art. In response, the examiner notes that as discussed in the Office action dated March 7, 2008 and above, both the method and the composition of Berns ('687) in view of Speidel et al. ('115) are substantially identical to the claimed method and claimed composition respectively. Therefore, the same results would be expected. See MPEP 2112.01.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art
Unit 1793

WZ

9/2/2008